

HALF VOLTAGE GENERATOR FOR USE IN SEMICONDUCTOR MEMORY DEVICE

ABSTRACT

5 A voltage generator for use in a semiconductor memory device provides a stabilized
output voltage of half a supply voltage V_{cc} . The voltage generator includes a reference
voltage generator capable of generating first and second reference voltages. A differential
amplification drive circuit is capable of generating an output voltage responsive to the first
and second reference voltages. A resistance/diode reference voltage generator is capable of
10 generating third and fourth reference voltages. And a pull-up/down drive is capable of
changing the output voltage responsive to the third and fourth reference voltages. The
resulting voltage generator provides a stable and accurate output voltage that is resistant to
output load variations.

15